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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,772	10/24/2003	Laura Wills Mirkarimi	10031180-1	8958
57299	7590	08/29/2006	EXAMINER	
AVAGO TECHNOLOGIES, LTD.			VINH, LAN	
P.O. BOX 1920			ART UNIT	
DENVER, CO 80201-1920			PAPER NUMBER	

1765

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action Before the Filing of an Appeal Brief</b>	Application No. 10/692,772	Applicant(s) MIRKARIMI ET AL.	
	Examiner Lan Vinh	Art Unit 1765	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 15 August 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: 8,9 and 11-16.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1-5,10,19 and 20.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attachment.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
Lan Vinh  
AU 1765

***Response to Arguments***

1. Applicant's arguments filed 8/15/2006 with respect to the rejection of claims 1-5, 19, 20 under 35 U.S.C 103(a) based on Shul have been fully considered but they are not persuasive. The applicants argue that the examiner is not free to alter the claim language of "a concentration of about 5 percent to about 75 percent by volume" to match the art cited by the examiner. This argument is unpersuasive since the examiner did not alter the claim language because the examiner states that "the claim language of "a concentration of about 5 percent to about 75 percent by volume of the gas can be interpreted as the flow rate of the gas in the reactor. It is noted that the MPEP 2111 states" claims must be given their broadest reasonable interpretation consistent with the supporting description". In page 4 of the instant specification, the applicants disclose "the ratio of HBr:CH<sub>4</sub>:H<sub>2</sub> is set to about 30:5:5 while BCl<sub>3</sub> may be adjusted up to about 50 % by volume". It is also noted that it is conventional in the art of plasma etching to adjust an etchant in a plasma etching mixture by adjusting the flow rate. Since Shul teaches adjusting the flow rate of BCl<sub>3</sub> gas (11 % by volume) through a flow controller (page 6, lines 20-25) into an etching mixture in the plasma reactor, Shul teaching can be interpreted as a concentration of about 5 percent to about 75 percent by volume presented in the reactor.

The applicants argue that there is no suggestion to combine the references of Tanabe and Shul because it is well known that components of etching gas are consumed at different rates in the reactor, one can not determine the concentrations of the gases in the reactor without knowing the rate of consumption of the various gases. This

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argument is unpersuasive because while it is true that gases are consumed in the reactor, it is also true that claim 1 requires " a concentration of BCl<sub>3</sub> about 5 percent to about 75 percent by volume"/ a broad range of BCl<sub>3</sub> concentration in the reactor, which also implies that the concentration of BCl<sub>3</sub> varies/being consumed in the reactor.

Although the applicants argue that one can not determine the concentrations of the gases in the reactor without knowing the rate of consumption of the various gases, claims 1 and 19 of the instant application claiming " a concentration of BCl<sub>3</sub> gas in the reactor" without requiring the rate of consumption of gases in the reactor. Thus, it is asserted that Shul discloses the concentration of gas in the reactor, as recited in claims 1, 19, and one skilled in the art at the time the invention was made would have found it obvious to employ Shul teaching in Tanabe method to produce the claimed invention

### ***Conclusion***

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Vinh whose telephone number is 571 272 1471.

The examiner can normally be reached on M-F 8:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571 272 1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'LV' followed by a stylized flourish.

LV  
August 25, 2006